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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,795	08/25/2003	Yao-Min Lin	LINY3044/ EM	1221
23364	7590	08/02/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			DINH, JACK	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/646,795	<b>Applicant(s)</b> LIN ET AL.	
	<b>Examiner</b> Jack Dinh	<b>Art Unit</b> 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>DETAILED ACTION</u> .                  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's submitted prior art in view of Garner (US Patent 4,364,628).

(a) Regarding claim 1, the Applicant's submitted prior art (page 2, lines 12-15) is interpreted as disclosing a position micro-perturbation device comprising a system of four wedge-shaped lenses and a photodetector for receiving light emitting from the wedge-shaped lenses. The Applicant's submitted prior art does not specifically disclose the claimed configuration of a first optical lens and two wedge-shape lenses. Within the same field of endeavor, Garner (figure 1-3) is interpreted as disclosing a similar configuration comprising a first optical lens 1, two wedge-shaped lenses 8 and 9 which are rotatable (see figure 2) and mounted adjacent to the first optical lens, wherein the image passing through the first optical lens is incident upon the photodetector by the deflection of the wedge-shaped lens, and the wedge-shaped lenses being then rotated to cause position micro-perturbation by displacing the image incident upon the photodetector (see figures 2 and 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time that the invention was made to use the configuration of an optical lens and two wedge-

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shaped lenses, as taught by Garner, for the purpose of reducing the size of the whole position micro-perturbation device and increase the accuracy thereof at a reasonable cost.

(b) Regarding claim 2, Garner (figure 1) is interpreted as further disclosing a second optical lens 2 mounted between the wedge-shaped lenses and the photodetector to focus the light or image from the wedge-shaped lenses on the photodetector.

(c) Regarding claims 3 and 4, Garner (figure 1) is interpreted as further disclosing two rotating disks (not shown) to mount the wedge-shaped lenses thereon and a driving unit 6 for driving the rotation of the rotating disks (col. 2, lines 18-58).

(d) Regarding claim 5, Garner is interpreted as disclosing all the claimed limitations, as described above, except that the driving unit is a step motor. However, the Applicant does not disclose any unexpected results of using a step motor over those of the prior art. Therefore, it would have been obvious to one having ordinary skill in the art at the time that the invention was made to select a step motor, or perhaps any other types of motor, for the purpose of driving the rotating disks.

(e) Regarding claim 6, Garner (figure 2) is interpreted as further disclosing that the wedge-shaped lenses can be rotated in opposite directions to change the light path of the image from the first optical lens to be incident upon an adjacent position.

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(f) Regarding claim 7, Garner is interpreted as disclosing all the claimed limitations, as described above, except that the full 360 degree rotation range was not disclosed. However, the two wedge-shaped lenses rotate relative to one another. Therefore, the 360 degree rotation range would have been irrelevant, if not obvious. In addition, the Applicant does not disclose any unexpected results of using this range over those of the prior art. Therefore, it would have been obvious to one having ordinary skill in the art at the time that the invention was made to select this rotation range, or perhaps any other ordinary range, for the rotation range.

(g) Regarding claim 8, the Applicant's submitted prior art is interpreted as further disclosing that the photodetector is a charge-couple device (page 2, lines 12-25).

(h) Regarding claim 9, Garner (figure 1) is interpreted as further disclosing that the wedge-shaped lenses are mounted coaxially.

(i) Regarding claim 10, Garner (figure 3) is interpreted as further disclosing that the inclined angle between the light-incident plane and the lateral surface of each wedge-shaped lens is less than 30 degrees.

***Other Information/Remarks***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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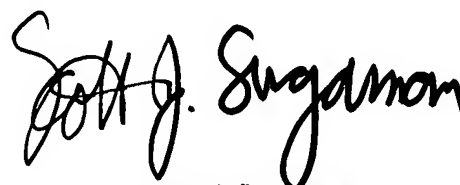
Kikuchi (U.S. Patent 5,172,268), and Martin (UK Patent Publication 2238626) disclose similar devices.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is 571-272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jack Dinh

A handwritten signature in black ink, appearing to read "Scott J. Sugerman". The signature is stylized with a large, looped "S" and a cursive "J".

**Scott J. Sugerman**  
**Primary Examiner**